

AMENDMENTS TO THE CLAIMS

1. (Previously amended) A laser irradiation device comprising:

- a) a laser source for emitting a first laser beam;
- b) a first optical system for converting said first laser beam into a second laser beam;
- c) a diffraction grating light valve having a plurality of reflective elements arranged in a

5 predetermined direction for converting said second laser beam into modulated signal beams; and

- d) a second optical system for directing said signal beams onto a medium,

wherein said second laser beam is linearly polarized in a direction substantially parallel to said predetermined direction.

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2. (Original) The laser irradiation device according to claim 1, wherein

said first optical system comprises

a polarization direction converter for converting a polarization of said first laser beam.

3. (Original) The laser irradiation device according to claim 2, wherein

said polarization direction converter is a phase plate.

4. (Original) The laser irradiation device according to claim 3, wherein

said first laser beam has a peak wavelength within the range from 800 nm to 820 nm.

5. (Previously amended) A laser irradiation device comprising:

a) a laser source having a plurality of emitters arranged in a first direction for emitting a first laser beam linearly polarized, said first laser beam being polarized in a second direction substantially perpendicular to said first direction;

5 b) a first optical system for converting said first laser beam into a second laser beam;

c) a diffraction grating light valve having a plurality of reflective elements arranged in a predetermined direction for converting said second laser beam into modulated signal beams; and

d) a second optical system for directing said signal beams onto a medium,

wherein said first optical system comprises a halfwave plate for rotating a polarization of said first laser beam by 90 degrees.

6. (Original) The laser irradiation device according to claim 5, wherein said first laser beam has a peak wavelength ranging from 800 nm to 820 nm.

7. (Previously amended) A laser irradiation device comprising:

a) a laser source having a single emitter for emitting a first laser beam substantially linearly polarized;

5 b) a first optical system for converting said first laser beam into a second laser beam, said second laser beam being substantially the same in polarization direction as said first laser beam;

c) a diffraction grating light valve having a plurality of reflective elements arranged in a predetermined direction for converting said second laser beam into modulated signal beams; and

d) a second optical system for directing said signal beams onto a medium,

wherein said laser source is so arranged that said first laser beam is linearly polarized in a
10 direction substantially parallel to said predetermined direction.

8. (Original) The laser irradiation device according to claim 7, wherein
said first laser beam has a peak wavelength within the range from 800 nm to 820 nm.

9. (Previously amended) An image recorder for modulating a laser beam to record an
image on a recording medium, said image recorder comprising:

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a) a laser source for emitting a first laser beam having a peak wavelength ranging from 800
nm to 820 nm;

5 b) a diffraction grating light valve for modulating said first laser beam in response to an
image signal to produce a zero-order diffracted signal beam; and

c) an imaging optical system for irradiating said recording medium with said zero-order
diffracted signal beam.

10. (Previously amended) The image recorder according to claim 9,

wherein said diffraction grating light valve comprises

a plurality of reflective elements arranged in a predetermined direction, and

5 wherein said first laser beam is linearly polarized in a direction substantially parallel to said
predetermined direction.

11. (Previously amended) The image recorder according to claim 10, further comprising

a polarization direction converter disposed between said laser source and said diffraction grating light valve for converting a polarization direction of said first laser beam.

12. (Original) The image recorder according to claim 11, wherein said polarization direction converter is a phase plate.

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13. (Previously amended) The image recorder according to claim 9, wherein said laser source has a plurality of emitters arranged in a first direction, said first laser beam being polarized in a second direction substantially perpendicular to said first direction, said image recorder further comprising

5 d) a halfwave plate disposed between said laser source and said diffraction grating light valve for rotating a polarization of said first laser beam by 90 degrees.

14. (Previously amended) The image recorder according to claim 10, wherein said laser source is so arranged that said first laser beam is linearly polarized in a direction substantially parallel to said predetermined direction.

15. (New) The laser irradiation device according to claim 1, wherein said plurality of reflective elements comprise:

a ribbon-shaped fixed reflective element having a fixed reflecting surface; and

a ribbon-shaped movable reflective element having a movable reflecting surface.

16. (New) The laser irradiation device according to claim 5, wherein said plurality of reflective elements comprise:

a ribbon-shaped reflective element having a fixed reflecting surface; and

a ribbon-shaped movable reflective element having a movable reflecting surface.

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17. (New) The laser irradiation device according to claim 7, wherein said plurality of reflective elements comprise:

a ribbon-shaped fixed reflective element having a fixed reflecting surface; and

a ribbon-shaped movable reflective element having a movable reflecting surface.

18. (New) The laser irradiation device according to claim 10, wherein said plurality of reflective elements comprise:

a ribbon-shaped fixed reflective element having a fixed reflecting surface; and

a ribbon-shaped movable reflective element having a movable reflecting surface.
